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ORIGINAL ARTICLE

A Persian Adaptation of Medication Adherence Self-Efficacy Scale (MASES) in Hypertensive Patients: Psychometric Properties and Factor Structure

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Abstract
Introduction Poor adherence to anti-hypertensive treatment significantly contributes to the failure to achieve well-controlled blood pressure in patients with hypertension.
Aim To convert the original English version of Medication Adherence Self-efficacy Scale (MASES) into a Persian version for clinical application in hypertensive patients.
Methods The backward–forward translation method was used to produce the Persian version of the questionnaire. Then the internal consistency was assessed using Cronbach's alpha. Exploratory Factor Analysis was applied to extract the components of the questionnaire. Correlation between blood pressures and drug adherence was then determined using the Persian MASES in hypertensive patients.
Results Cronbach's alpha coefficient of the Persian version of MASES was >0.92, suggesting that it can yield consistent results. Exploratory Factor Analysis suggested an uni-dimensionality of the scale. Patients with uncontrolled hypertension showed poor adherence to hypertensive medications, therefore had significant lower self-efficacy scores than those with well-controlled blood pressure by medications.
Conclusion The Persian version of MASES is valid and reliable to assess self-efficacy of antihypertensive medication adherence in hypertensive patient, which is helpful to improve medication compliance in such patients in order to achieve better blood pressure controls.

Keyword Hypertension · Blood pressure control · Self-efficacy

1 Introduction

Hypertension is one of the major causes of cerebrovascular and cardiovascular diseases and related mobility and motility. Hypertension is usually a chronic asymptomatic condition. It is estimated that worldwide about 60 % of the adult population will develop hypertension in year 2025. Compared to the developed countries, the risk of hypertension in the developing countries has almost been doubled, including Iran [1]. Uncontrolled hypertension is defined as systolic blood pressure greater than 140 mmHg or diastolic blood pressure greater than 90 mmHg. However, according to the latest recommendation by European Society of Hypertension, an ideal target blood pressure is less than 140/85 mmHg [2, 3]. In most cases, lifestyle modification and anti-hypertensive drugs are necessary to maintain an ideal blood pressure in order to reduce the risk of developing cerebrovascular and cardiovascular diseases [4].

Only a third of the patients with hypertension have adequate control over their blood pressure levels [5]. Despite active and intensive drug treatment and increased awareness, the blood pressure in hypertensive patients is

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